

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023490**Date Inspected:** 05-May-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	N/A			<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>	
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>

**Bridge No:** 34-0006**Component:** Orthotropic Box Girder( OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Manoj Prabhune was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This QA Inspector randomly observed the following work in progress:

OBG # TRIAL ASSEMBLY YARD

DCP:

Segment 12AW

This Quality Assurance (QA) Inspector witnessed final tension verification at the FL3 location. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00672 Dated May 5, 2011

Bolt sizes used were M24 x 65 DHGM 240013 and final torque required was 967 N-m.

Manual Torque wrench used was SR. XQ2-666.

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## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

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### Segment 12AW

This Quality Assurance (QA) Inspector witnessed final tension verification of installation of the Catwalk and the Cable Tray. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00672 Dated May 5, 2011

Bolt sizes used were M16 x 40 DHGM 160045 and final torque required was 180 N-m.

Bolt sizes used were M16 x 50 DHGM 160011 and final torque required was 200 N-m.

Bolt sizes used were M20 x 50 DHGM 200037 and final torque required was 367 N-m.

Manual Torque wrench used was SN. XQ2-114.

### Segment 12AE

This Quality Assurance (QA) Inspector witnessed final tension verification of Angles installed on the Edge Plate. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00672 Dated May 5, 2011

Bolt sizes used were M20 x 75 DHGM 200040 and final torque required was 287 N-m.

Manual Torque wrench used was SN. XQ2-114.

### Segment 12CW (Punch list item 256)

This QA inspector performed inspection of punch list item # (256) nonconforming radius Cope hole dimension at the end of the web stiffener without receiving the approval of the engineer. This nonconforming cope hole dimension was mentioned on a previous incident report # (968) dated 11/30/09. Prior to repair, the cope hole was measured by Caltrans QA that had a radius of approximately 40mm. The approved shop drawing (X3242) specifies a 25mm radius cope hole dimension at this location.

The location was inspected by QA and confirmed that ZPMC has fixed the issue. A report was forwarded to Caltrans QA Lead to close out the punch list item.

NDT:

### Segment 12CW

This QA Inspector performed Magnetic Particle Testing (MPT) Verification Inspection of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report on this date. The members are identified as Orthotropic Box Girder (OBG) components. The weld designations verified were as follows:

FB3089 (Punch List item 256)

Nondestructive testing (NDT) notification No.09031

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## WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

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Segment 12AW, 12BW, 12CW (Punch list items # 426, # 427 and 428)

This QA inspector performed inspection of punch list items (426, 427 and 428). These were at various locations of the installation of the cable tray supports.

These locations were inspected by this QA and confirmed that ZPMC had fixed the issues. A report forwarded to the Caltrans QA Lead to close out the punch list item.

Unless otherwise noted, all work observed on this date appeared to generally comply with the applicable contract documents.

### Summary of Conversations:

No significant conversations were reported on this date.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact James Devey - 15000026784, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Prabhune,Manoj	Quality Assurance Inspector
<b>Reviewed By:</b>	Peterson,Art	QA Reviewer

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